



Dart Aerospace Ltd.
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D3220-041
Job Sheet 213028



Part No: D3220-041

Job Qty: 4 pcs

Part Name: Doubler Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 9/15/20

Job Tracking No:

Due Date: 10/16/20

Created By: Jennifer Renwick

Type: Stock

Description:

Note: DWG REV B IPP Rev:A New Issue 05-11-06 JLM IPP: B 06.11.15 waterjet EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Waterjet - Flow - 1	4 pcs		10/15/20	0.10	0.43	Waterjet - Flow		09/20/10/06
110	QC 2	4 pcs		10/15/20	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		09/20/10/06
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		
							QC 2 - 8		
							QC 2 - 66		
							QC 2 - 64		

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120	QC 8	4 pcs	10/15/20	0.00 0.00	QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
					QC 2 - 76	
					QC 2 - 86	
					QC 2 - 83	
					QC 8 - 12	
					QC 8 - 14	
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
130	Small Fab - 2 - B4B	4 pcs	10/15/20	0.00 0.28	QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
					QC 8 - 76	
					QC 8 - 61	
					QC 8 - 66	
					QC 8 - 73	
					QC 8 - 82	
					Small Fab - 1 - B4B	
140	QC 5	4 pcs	10/15/20	0.00 0.00	Small Fab - 2 - B4B	
					Small Fab - 3 - B4B	
					Small Fab - 4 - B4B	
					Small Fab - 5 - B4B	
					Small Fab - 6 - B4B	
					Small Fab - 7 - B4B	
					Small Fab - 8 - B4B	
					Small Fab - 9 - B4B	
					Small Fab - Various 1 - B4B	
					QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 43	
					QC 5 - 49	

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58
9-89

OCT 0 8 2020

				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
				QC 5 - 40	OCT 0 2020 JAS 40 99
				QC 5 - 61	
				QC 5 - 81	
				QC 5 - 82	
150	Handfinish - 1-1 Chemical-B4B	4 pcs	10/15/20	0.00 0.30	Handfinish - 1 - 1 - B4B
					Handfinish - 1 - 2 - B4B
					Handfinish - 1 - 3 - B4B
					Handfinish - 1 - 4 - B4B
					Handfinish - 1 - 5 - B4B
					Handfinish - 1 - 6 - B4B
					Handfinish - 1 - 7 - B4B
					Handfinish - 1 - 8 - B4B
					Handfinish - 1 - 9 - B4B
					Handfinish - 1 - 10 - B4B
					Handfinish - 1 - 11 - B4B
					Handfinish - 1 - 12 - B4B
					Handfinish - 1 - 13 - B4B
					Handfinish - 1 - 14 - B4B
					Handfinish - 1 - 15 - B4B
					Handfinish - 1 - 16 - B4B
					Handfinish - 1 - 17 - B4B
					Handfinish - 1 - 18 - B4B
					Handfinish - 1 - 19 - B4B
					Handfinish - 1 - 20 - B4B
					Handfinish - 1 - 21 - B4B
					Handfinish - 1 - 22 - B4B
160	QC 3	4 pcs	10/15/20	0.00 0.00	QC 3 - 10
					QC 3 - 13
					QC 3 - 15
					QC 3 - 17
					QC 3 - 18
					QC 3 - 2
					QC 3 - 28
					QC 3 - 3
					QC 3 - 30
					QC 3 - 34
					QC 3 - 36
					QC 3 - 41
					QC 3 - 51
					QC 3 - 58
					QC 3 - 59
					QC 3 - 68
					QC 3 - 9
					QC 3 - 40
					QC 3 - 19
					QC 3 - 43
					QC 3 - 24
					QC 3 - 61
					QC 3 - 81
					QC 3 - 82
					QC 3 - 87
					QC 3 - 47
170	Small Fab - 3 - B4B	4	10/16/20	0.00 0.36	Small Fab - 1 - B4B

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				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
				Packaging 3 - 37 - B4B	
200 QC 21 - SA	4 pcs	10/16/20	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 9	OCT 19 2020 DAS
				QC 21 - SA - 77	70
				QC 21 - SA - 28	9-89

Part Op 100 - 1-Cut D3220-1 as per Dwg D3220 Dwg Rev: _____

Descriptions: 110 - (QC2- Inspect parts off machine FAI/FAIB)

120 - (QC8- Inspect parts - second check)

130 - (Small Fab) 1-Deburr 2-C'sink D3220-1 as per Dwg D3220

140 - (QC5- Inspect part completeness to step on W/O)

150 - (Chemical Conversion Coat per QSI005 4.1)

160 - (QC3- Inspect Part Finish)

170 - (Small Fab) Assemble D3220-041 doubler as per Dwg D3220

180 - (QC5- Inspect part completeness to step on W/O)

190 - (Identify as per dwg & Stock Location: _____)

200 - (QC21- Final Inspection - Work Order Release)

017767

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M2024T3S.050	2024-T3 .050 Sheet	2.7704 sf (.6926 ea)	100-Waterjet - Flow - 1	S237392
MS20426AD3-3	Rivet S312	32 Ea (8 ea)	170-Small Fab - 3 - B4B	S174287
MS21059L4	Nutplate S301	16 Ea (4 ea)	170-Small Fab - 3 - B4B	S251375

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Waterjet - Flow - 1	M2024T3S.050	3	70	0
170-Small Fab - 3 - B4B	MS20426AD3-3	32	2,853	0
	MS21059L4	16	50	0

Part Specifications

Specifications could not be found.

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DART AEROSPACE LTD		Work Order: 213028
Description: Doubler		Part Number: D3220-1
Inspection Dwg: D3220	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

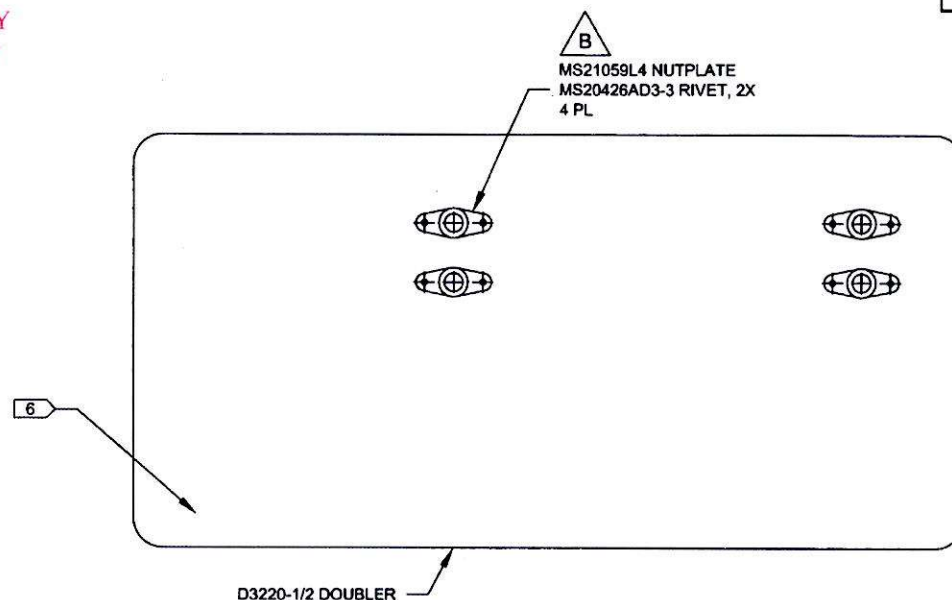
☒ First Article
 ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5.50	+/-0.030	5.50	1		Tap	
14.25	+/-0.030	14.25	1		"	
R0.50	+/-0.030	.50	1		"	
7.00	+/-0.030	7.00	1		"	
7.000	+/-0.005	6.998	1		V=Dr-04	
1.50	+/-0.030	1.502	1		" "	
1.000	+/-0.005	1.001	1		" "	
0.500	+/-0.005	.499	1		" "	
1.000	+/-0.005	.999	1		" "	
0.316	+0.005/-0.000	.315	1		" "	
0.098	+0.005/-0.000	.097	1		" "	
0.050 thick	+/-0.005	.050	1		" "	
Grain Direction	N/A	1	1			

Measured by: <i>de</i>	Audited by: DAS 40	Prototype Approval:	N/A
Date: 20/10/20	Date: OCT 20 2020	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.02.27	New Issue P/O D3220-041	KJ/RF	
B	10.02.02	Dwg Rev updated	KJ	

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 213028



**D3220-041 DOUBLER ASSEMBLY (SHOWN WITH D3220-1 DOUBLER)
D3220-042 (OPPOSITE)**

NOTES:

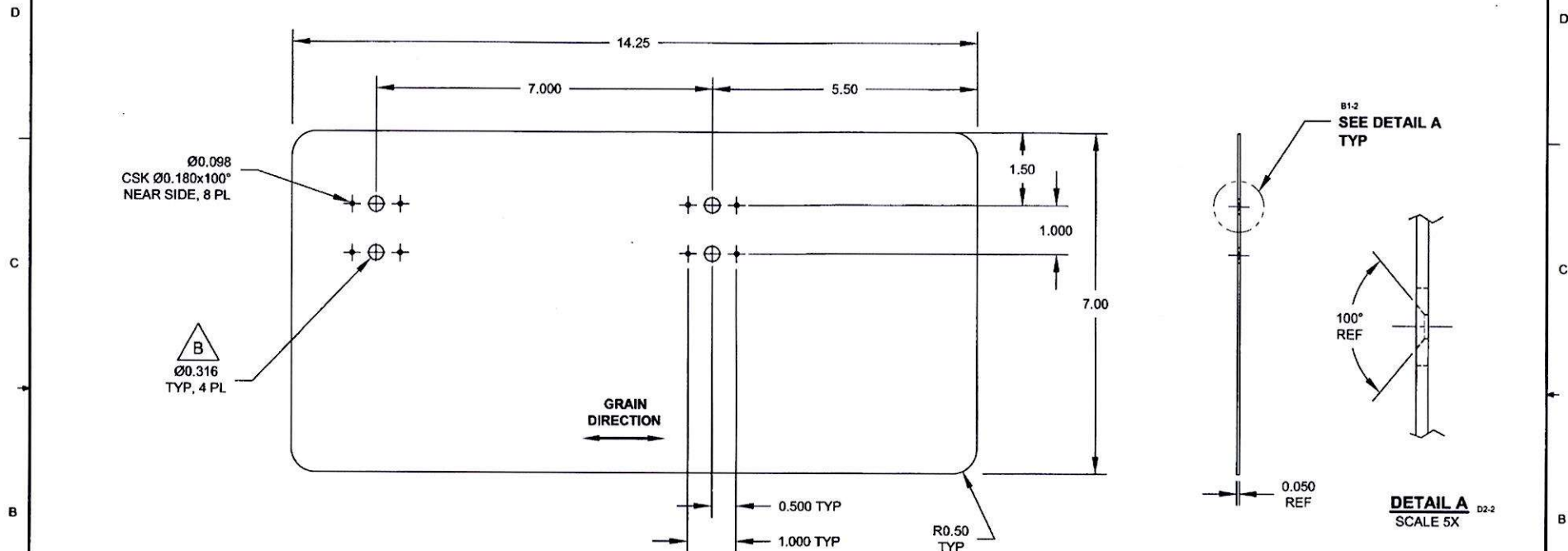
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-04X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3220-041 = 0.53 lbs
D3220-042 = 0.53 lbs

Item	Qty -041	Qty -042	Part Number	Description
1	X		D3220-041	DOUBLER ASSEMBLY
2		X	D3220-042	DOUBLER ASSEMBLY
3	1		D3220-1	DOUBLER
4		1	D3220-2	DOUBLER
5	4	4	MS21059L4	NUTPLATE
6	8	8	MS20426AD3-3	RIVET

RELEASED
2009-09-09

B	DRAWING UPDATED TO CURRENT STANDARDS. Ø0.316 WAS Ø0.323 (ZN C8-2, B4-3); MS20426AD3-3 WAS MS20426AD3-4 (ZN D4-1); CORRECT TYPO NOTE 1 (ZN A8-2, A8-3); REF PAR 09-025		RF	09.07.08
A	NEW ISSUE		CP	03.10.18
REV.	DESCRIPTION		BY	DATE
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	RF			
CHECKED		DRAWING NO.	REV. B	
MFG. APPR.		D3220	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		DOUBLER	NTS	
DATE	09.07.08		COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



D3220-1 DOUBLER

RELEASED
2009-09-09
MD



NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
REF DART SPEC. M2024T3S.050
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-1" USING REMOVABLE TAG
- 7) WEIGHT: 0.50 lbs

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	09.07.08	COPYRIGHT © 2003 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Container No: S305056



Part: D3220 - 041

Job No: 213028

Serial No/Batch: S305056

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

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Date: 10/06/20